## **ABSTRACT**

In an optical spectrum analyzer comprising a spectrograph and a photodevice array, and an optical spectrum detecting method, a wavelength deviation, from an assigned wavelength, of a light detected by a photodevice array which detects a wavelength of a diffraction light or a non-diffraction light from an acoustooptic device, is detected and a feedback control to a diffraction angle of the acoustooptic device is performed. Also, without using a feedback control, an exit light and a diffraction light from the acoustooptic device are respectively received by two photodevice arrays and the photodevices are arranged in order to mutually compensate gaps between the photodevices, whereby a center of each photodevice is similarly made coincide with a peak of an optical beam to be received.

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